HRB-SINGER, INC.
A SUBSIDIARY OF THE SINGER COMPANY
Science Park, State College, Pa.

FINAL REPORT

Contract OCD-PS-65-69
Work Unit 3515A

DISPLACEMENT: SOCIAL AND PSYCHOLOGICAL PROBLEMS

August 1965

Prepared by:

John W. McLanahan, Ph.D.
Robert S. Hostetter

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SUMMARY

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SUMMARY

The problem investigated in the current study was one of the many involved in the broad problem of population relocation.

Many of the problems involved in relocation can be effectively attacked only within the context of specific situational determinants; e.g., time available for movement into reception areas. Whether or not certain time demands can be met is, of course, dependent upon the total available or usable transportation facilities of a given area, and is therefore geographically dependent. However, there are several problems involved in relocation which can be considered, in large part, independently of factors such as time and transportation facilities; one of these is the problem investigated in this study, the problem of housing of people in reception areas. Regardless of the type of movement, duration of stay, etc., evacuees will have to be housed in some fashion until such time as they can reestablish in some way. While some people will be able to stay with friends and relatives, and will therefore not initially pose a major problem to civil defense authorities, there are many who will have nowhere to go and must be provided for by the government from the outset.

There are three types of accommodations which could be used for displaced persons: (a) camps or bivouacs, (b) public facilities such as hotels, and (c) private homes. It is apparent that the greatest space availability by far would be in private homes. For this reason, the study was focused on the general problem of billeting in private homes. Since the success or failure of a billeting arrangement is dependent upon the interpersonal relationship between the two billeting families, the factors related to the interfamily adjustment process were of primary interest. The problem of interfamily adjustment was approached from a case study viewpoint with emphasis on identification and description of concrete sources of disruption rather than on an attempt to develop a theory of interpersonal tension.

The bulk of the data on billeting in private homes in general, and on interfamily adjustment in particular is provided by three sources:

1. The Holland flood disaster of 1953.
2. The British evacuation experience of World War II.
3. The German evacuation experience of World War II.

Data from these three sources were used as the foundation for the discussion, but were supplemented by other data as required. A large part of the disaster literature, while relevant to many of the subproblems of population relocation, does not include data relevant to the problem at hand. The dearth of literature directly relevant to the billeting and the consequent difficulties of interpretation became apparent early in the study. It should be noted that, of the major data sources, only Lammers (1955) study of the Holland flood disaster provided a systematic study of the problem. The other major sources rely mostly on anecdotal data.

The following factors have been reviewed relative to their effects upon the host-evacuee interfamily adjustment process.

1. Perception of danger and deprivations.
2. Compulsory vs. voluntary billeting.
3. Billeting with friends or relatives vs. with strangers.
4. Family separation.
5. Presence of children.
6. Social status differences.
7. Religious differences.
8. Community differences.
9. Attachment to the evacuated (home) community.
10. Space and privacy.
11. Social contacts outside the evacuee-host relationship.

It was found that in general factors 4 through 10 all lead to increases in interfamily tensions. Since, in most cases, more than one of these factors characterized the host-evacuee relationship, it was not possible to order the effects.

Also there was complete unanimity regarding the desirability of voluntary rather than compulsory billeting (factor 2) and the desirability of having social contacts outside of the host-evacuee relationship.

The "perception of dangers and deprivations" factor is not related as directly as the others to the host-evacuee relationship but it is important because it is the level of these perceptions which predisposes evacuees and hosts to react to the evacuation and billeting situation in certain ways. More basic, is the problem of initially motivating people to behave in a manner commensurate with the gravity of the situation. Review of the data related to this factor pointed up the necessity of extensive public information programs if a strategic evacuation is ever included into civil defense planning.

Whether it is better to billet with friends or relatives, or with strangers appears to be partially dependent upon the number of friends and/or relatives, in addition to the hosts, one has in the area. However, there is general agreement that billeting with friends or relatives results generally in a better host-evacuee relationship.

The paucity of data directly relevant to the host-evacuee relationship, along with the previously mentioned problem of the lack of systematic study of the relevant factors, makes it extremely difficult, if not impossible, to draw any tenable conclusions. In addition, most of the data which is available was taken in cultures other than our own, making generalizations untenable. The data presented can only serve as guidelines to further research on the problem. Using these data as guidelines, the relevance and criticality of these factors should be evaluated relative to the American sociological and psychological literature. Much of these data, while not directly relevant, can serve to aid in the determination of which factors may be important enough to require experimental verification.

In doing this study, much of the disaster literature was reviewed for possible relevance to the problem investigated. In doing this it became apparent that population relocation has not yet been studied in its totality, and that the many studies relevant to it have generally not been considered in terms of their relationship to one another. If ever a countermeasure system to handle the relocation problem is going to be developed, it is necessary to know the relationships between all of the problems.

There is, therefore, the need for an analytical study to develop a structural framework within which to study the broad problem of population relocation. This study should have as its primary goal the definition of all of the problems related to relocation and an analysis of their scope and implications. This data should be presented in such a way as to permit the following:

1. Derivation of the interrelationship between problems.
2. Definition of problems which became apparent with knowledge of the above interrelationships.
3. Determination of the order of each problem in terms of criticality/strategicality.
4. Determination of the general type of analysis best suited to each problem.
5. Determination of where significant gaps in information exist.

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I. INTRODUCTION

In the event of a thermonuclear attack and the consequent widespread damage and destruction, there is no doubt that large numbers of people will be made homeless. This is not to infer that all of the homes will necessarily be damaged beyond repair, but that associated problems such as water contamination, social disruption, and the like may make people effectively homeless even if the physical damage to the home is not particularly severe. Given even serious threat of imminent attack, it is likely that many people in potential target areas will, under government request or by their own volition, leave their homes for areas of safety. Whatever the case, relocation of many of these people, perhaps in large numbers, will be required.

One aspect of the relocation problem, that of housing, was the problem attacked in this study. Before proceeding into this subject, however, it may be well to digress in order to put the problem in proper persepective and to relate it to the goals of OCD research such as this.

Relocation of large numbers of people has many ramifications: social, psychological, economic, logistic, administrative, and others. It will most likely fall on the shoulders of civil defense authorities to deal, at least at some level, with many of the problems which might be generated by this relocation. Even if the involvement of OCD is delegation of responsibility and authority, rather than dealing directly with the problem, an intimate familiarity with the problem is required. That there will be problems there is little doubt; the questions which must be answered by studies such as the present one are: What is the specific nature of the potential problems; of what magnitude are they; and what can and/or must be done to prevent or alleviate any anticipated detrimental effects? More appropriately rephrased, the aim studies such as the present one is to help answer the question: is a countermeasure system required to handle the relocation problem and if so what shall the elements of the system be? The very fact that the problem is being considered in terms of the requirement for countermeasures suggests that it be placed in broad persepective for purposes of study. In order to gain this breadth, we have chosen to think of the present problem within the overall context of "population relocation." This term has the advantage of not being tied to specific types of population movement such as evacuation or migration; further it implies

something beyond mere movement. The type of countermeasure system under discussion should provide the capability to cope with all types of evacuation and with long and short term migration, each of which may be either spontaneous or controlled; further it should provide the capability to deal with post-movement housing and resettlement and all of the consequent problems. Therefore, "relocation" seems to reflect the nature and function of the required system with greater clarity than would other terms such as "evacuation" or "movement"; it reflects the entire process in which we are interested. Thinking of "population relocation" as a dynamic process with transportation, housing, etc. as stages, has some heuristic value in that if forces one to consider the ongoing relationships between all of the stages, and how they, in various combinations, may effect the end result. Many stages in the process have been considered separately, but it remains to develop a structure within which each of these stages can be related and analyzed.

Not only should a countermeasure system provide the capability for handling several types of population movement, but it should provide the capability to handle several types simultaneously. That this is so is reflected in a statement by Ikle (1958) in a discussion of evacuation. He points out that:

> "In actual fact, these kind of evacuations[1] seldom occur singly, but are usually found in various combinations and sequences. Moreover, evacuation is usually only partial; that is, only a fraction of all the persons who are theoretically included in a given category actually leave the target area. Thus, the typical pattern is a combination of two or all three types of evacuation, involving varying fractions of the total number of potential evacuees. The social consequences and defense implications, however, are distinctly different for each type, so that separate treatment is warranted."

[1] Here Ikle is discussing: (1) pre-attack short range evacuation of the whole population; (2) long term evacuation of the nonessential personnel, and (3) long term evacuation of the whole population.

Note that Ikle also states that separate treatment is required for each type of evacuation; this, of course, applies not only to evacuation but to each type of population movement. If a countermeasure system is required then, the task will be to combine a number of different problem solutions into an operational system, insofar as a single total system is feasible. In order to do this the solution to all the separate problems must be analyzed for similarities and differences. Derivation of the relationships between the problems will be facilitated by a macroscopic view of the entire problem. The type of broad analysis being suggested should have as its end result a multidimensional "matrix" which: (1) reflects the relationship between stages in the relocation process and facilitates the handling of data which is available; and (2) reflects gaps in data. The latter results can then be used to develop guidelines for future research. The purpose of the current study was to fill one of the cells in this now-hypothetical matrix.

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II. PROBLEM DEFINITION

Many aspects of the probelm involved in relocation can be attacked effectively only within the context of specific situational determinants; e.g., time available for movement into reception areas, arrival rates, etc. Whether or not the time demands of certain types of movement can be met is, of course, dependent upon the total available or useable transportation facilities of a given area. However, there are several aspects of the relocation problem which can be considered, in large part, independentiy of factors such as time and transportation facilities; one of these is the problem of housing of people in reception areas. Regardless of the type of movement, method of transportation, rate of arrival, etc., evacuees will have to be housed in some fashion until such time as they can reestablish themselves. While some people will be able to stay with friends and relatives, and will therefore not initially pose a major problem for policy markers, there are many who will have nowwhere to go and must be provided for by the local, state, or federal government from the outset.

There are three types of accommodations which could be used for displaced persons: (a) camps or bivouacs, (b) public facilities such as hotels and motels, and (c) private homes. It is apparent that the greatest immediate space availability by far would be in private homes. For this reason, the study was focused on the general problem of billeting in private homes. Since the success or failure of a billeting situation is dependent upon the interpersonal relationship between the two billeting families, the factors related to the interfamily adjustment process were of primary interest. The problem of interfamily adjustment was approached from a case study viewpoint with emphasis on identification and description of concrete sources of disruption rather than on an attempt to develop a theory of interpersonal tension.

The bulk of the literature related directly to billeting in private homes is provided by three sources· (1) The Holland flood disaster of 1953; (2) The British bombing experience of World War II; and (3) The German bombing experience of World War II. Data from these three situations will be used as the foundation for the discussion, but will be supplemented by other relevant data as required. It should be noted that a large part of the disaster literature, while relevant to many aspects of the relocation problem, does not include data

relevant to the factors which generate tension between the evacuee and host families and consequently effect the interfamily adjustment process. It is felt that knowledge of these factors will provide a definition of the nature of the problem so that decisions can be made regarding the feasibility of its solution. Knowledge of these factors will, for example, permit a determination of the researchability of each factor and, where applicable, the research approach to be used to study each factor. Also, the complexity of the total problem will become more apparent in terms of probable interaction of factors. In other words it will provide some indication as to the direction which future research must take if solution to the problem in interfamily adjustment is deemed desirable by OCD. It shoud be noted, however, that by virtue of the fact that the major portion of the data sources are from cultures which are in many respects dissimilar to our own, generalization from these data is dangerous. This study has defined those factors which appear to be important, and while it was beyond the time and resources of this study, the importance and criticality of these factors must be further reviewed and considered relative to the American sociological and psychological literature. Ikle and Kincaid (1956) point out that since billeting is required only in periods of extreme emergency, it is difficult to generalize from the vast amount of data on interpersonal relations which have been taken under more normal circumstances. While this is quite true, these data (i.e., from the American literature) can be profitably used to temper any conclusions drawn from data taken in cultures other than our own. Only after this has been done can the data be used in planning or can the problems be taken into the research phase, if that is in fact desired. This study then was a necessary first step in pursuit of initial definition and ultimate solution of the problem.

The initial part of this section presents, for the major data sources, background information relating to the circumstances under which the data were collected, the methodology used to collect the data, and the general effect of the billeting arrangements used. It may be noted that, of the major sources, the only systematic data which were collected relative to the interfamily adjustment problem were those collected in the Holland flood disaster (Lammers, 1955); the other major data sources rely on mostly anecdotal data.

III. BACKGROUND INFORMATION

A. HOLLAND FLOOD DISASTER OF 1953

In February of 1953, a section of Holland was flooded by sea water, destroying 26,000 dwellings and rendering more than 72,000 people homeless. The homeless, being mostly people from rural areas, were evacuated to heavily populated urban areas which remained untouched by the floods. After a short initial period in reception centers, the evacuees were billeted in the homes of volunteer host families.

The evacuation situation was studied by the Institute for Social Research in the Netherlands (Lammers, 1955 and Ellemers, 1955) with particular emphasis being devoted to the social and psychological aspects of the evacuee-host interfamily adjustment process. The methodology used involved two sets of interviews, one three months after the disaster impact in which 880 evacuees and hosts were interviewed and administered a questionnaire, and a second, nine months after impact, in which 490 hosts responded to a mailed questionnaire. These data were used to determine factors which led to tension between the host and evacuee families in the billeting situation.

Since data were collected during two different time periods, Lammers (1955) was able to study changes in tensions as a function of time as well as factors related to the development of new tensions. The initial reaction of the host community was one of altruism and an outpouring of sympathy for the disaster victims. This reaction on the part of the hosts, along with feelings of gratitude on the part of the evacuees, therefore manifested itself in a harmonious host-evacuee relationship during the first few days of billeting. However, as these feelings began to disappear and the prospect of long term inconveniences and deprivations came to be perceived, altruism and gratitude were displaced by selfish attitudes and these changes led to interfamily tensions which, in general, increased over time.

B. BRITISH WORLD WAR II EVACUATIONS

Before and during World War II the British Ministry of Health and other civil defense authorities evacuated people from the vulnerable cities, primarily from London, to safer areas in the rural parts of England. The evacuation was,

for the most part, a planned, orderly exodus of millions of "nonessential" persons; that is, mothers, children, the aged, infirm, and others not essential to maintenance of the war effort.

The British evacuations differed from those of the Holland flood disaster in several respects: (1) the British movement was urban to rural rather than rural to urban as was the case in Holland; (2) only nonessential persons, women and children for the greatest part, rather than the entire populace were evacuated; (3) more people were evacuated -- 3,500,000 rather than 72,000; (4) evacuation occurred over a longer period of time with the majority being evacuated before the war actually began rather than over one day as happened in Holland; (5) the British evacuation was primarily of the strategic type, occuring when attack was only imminent or when only a potential danger existed, whereas the Holland flood evacuation was of the post-disaster type; and (6) in the British case, the element of total surprise and unpreparedness was essentially absent since planning had been under way for a number of years and expectancy was certainly there.

Although the official evacuation of London was planned for 3,500,000 by the civil defense authorities, 2,000,000 of these privately evacuated themselves to safer areas; of these over half went to previously earmarked accommodations with friends and relatives. The evacuation was on a voluntary basis. Most of the evacuees were billeted in private homes, but some hotels, camps, and other facilities were used.

In the planning stages most attention was devoted to the evacuation itself, to almost the complete neglect of attention to the reception and billeting of evacuees in the host communities.

The primary source of data concerning the British experience in World War II is Titmuss (1950). The data are anecdotal in nature, coming mostly from the experiences of the Ministry of Health in carrying out the evacuation and billeting programs. There is a complete absence of any systematic study as was conducted in the Holland flood disaster.

When the first evacuation was put into effect there were in the host communities, no reception centers; medical facilities (particularly maternity) were quite inadequate; none of the camps were ready; and beds, blankets, furniture, lighting, heating, and many other facilities and kinds of equipment

were either insufficient or in the wrong places. The following statement from Titmuss (1950) summarizes the nature of the reception of the evacuees.

> "Many reports testify to the general confusion and unpreparedness which characterized the reception of the mothers and children in September 1939. All the troubles caused by lack of preknowledge about the evacuees, train delays, the ban on spending and other factors, were piled higher when many of the parties, traveling in crowded trains, sometimes without lavatories and adequate water supplies, arrived in a dirty and uncooperative state. It was not a good start. Town and country met each other in a critical mood." (p. 111)

The methods of billeting were: (1) direct selection by hosts and (2) haphazard allotment. Mothers were not desired as billet guests, many guests hoping to get children without having to also accept their mother. Titmuss (1950) states, "the indiscriminate handing round of evacuees in the billeting of 1939 inevitably resulted in every conceivable kind of social and psychological misfit." People of very diverse backgrounds and character were thrown into daily, intimate contact. The hardest group of all to billet were the mothers with several children. Attempts were made to billet them in empty houses. Quite often they took the next train back home. One of the most serious problems faced was the reception and handling of pregnant women. As Titmuss further states:

> "All this work of improvising a variety of services and of rebilleting mothers and children had to be carried on in an atmosphere which, from being friendly and compassionate at the start, rapidly deteriorated until, in some areas, it became openly hostile. It did so, partly because of the complications and irritations (arising from the nature of the reception and early handling of the evacuees), partly because of bad manners and behavior, and partly because both parties had rarely met before and knew little about each other's way of life. But the absence of air attacks,

and -- in the West -- the undramatic opening phase of the war, were perhaps the chief reasons for the rapid change in mood from sympathy to hostility." (1950, p. 114)

Many evacuees left the host communities and returned to the target areas. Titmuss has offered several reasons for this termination of evacuation: (1) the great strength of the backward pull of the cities, i.e., the pull of better social services in London and the big cities and the push of inadequate provision in the reception areas; (2) different or unsatisfactory provision for education in rural areas; (3) rural slums, old and dilapidated schools, and infections caught from local children; (4) economic factors such as the cost of keeping two homes going; of fares to visit the reception areas; of extra clothes to meet the demands of winter in the country; and the general leveling-up standards required by many foster-parents; (5) dissatisfaction with the amount of billeting allowance paid to householders; and (6) religious differences represented by Roman Catholic and Jewish families -- Jewish customs were unknown and misunderstood in the rural areas where the people were long settled in their habits and hostile to "foreigners." Titmuss states that all of the studies performed on various aspects of the British evacuation agree on one point: "That the general interference and inconvenience caused by billeting in private houses was not acceptable in the absence of air attack."

Titmuss points out two factors which served as a tense background against which all the other problems operated to produce conflicts between host and evacuee:

(1) "The principle enemy of evacuation was the solidarity of family life among the mass of the people. The urge to reunite became stronger as the social cleavages in the nation pressed down in one way or another on mother and child." (p. 180)

(2) "The acute discomfort caused by the jostling of different and opposed social habits was the other great enemy of evacuation -- discordant differences in speech, behavior, dress, diet and morality were impressed, not only upon the

householders, but upon the evacuated mothers and the children's parents when they visited them in the country." (p. 180)

The second evacuation began in September, 1940, when the bombing of London began. This evacuation can be considered to be of the post-attack variety in that it occurred after the war started.[1] The second evacuation was smaller in terms of numbers of mothers, children, and other persons evacuated.

Many of the problems incurred in the first evacuation arose in the second evacuation as well, but there were new ones also, as the evacuation scheme was being carried out under wartime conditions.

The British government came under attack from many quarters for relying, for over five years, on private houses as the major source of accommodation for evacuees. Suggested as an alternative was a great number of specially built camps in the reception areas. The arguments used by the critics were usually based on sympathy for the householders in the reception areas.

Arguments against those who wanted to place the evacuees in camps were numerous. The use of camps was argued to be unrealistic since the war effort left no men or materials for construction of camps. Secondly, it would have been nearly impossible to find a staff to run the camps. Thirdly, and perhaps the most important consideration of all, was the emotional need of children, for family life. Private homes billeting did, at least, take this factor into account. Titmuss (1950) summarizes the peoples' feelings toward billeting in private homes in the following quote.

"----the great majority of householders who cooperated with the authorities could not help regarding the reception of evacuees as an invasion of fundamental rights, an interference with their comings and goings, a violation of the intimacies and ease of domestic life. For the authorities to impose -- and

[1] This is not to imply that this post-attack situation is directly comparable to a nuclear post-attack situation, however, as will be discussed in a succeeding section, the fact that attack has occurred has been shown to produce changes in evacuation behavior.

> to maintain for almost five years--a policy of billeting in private homes was a severe test of the better side of human nature. It was a formidable -- to some an intolerable -- burden for any government to place on a section of its people. A community less kindly, less self-controlled, less essentially Christian in behavior, would not have acquiesced to the same extent and for such a long period of time as this one did." (p. 388)

Complaints were forthcoming to the Ministry of Health as they were in the first evacuation. They were: (1) the poor physical conditions and difficulty of controlling the children; (2) that some parents were deliberately using the evacuation scheme as a means of ridding themselves of responsibility for their children in order to earn money in the factories (in other words, using the evacuation scheme as a long-term babysitting service); (3) that the billeting allowances were inadequate; and (4) that not all householders were sacrificing equally because many with room to spare were not taking in evacuees. On the positive side, some changes were instituted which led to more satisfactory host-evacuee relationships in the second evacuation. More attention was devoted to matching evacuee with host, especially where children were involved. Many parents made their own arrangements for billeting their children, which probably in most cases led to better billeting.

The wealthy people with the large houses were those who tried the hardest to avoid taking in evacuees. Often they managed through some means to get a medical certificate from a doctor which excused them from taking evacuees. The refusal of the well-to-do may not be entirely selfishness on their part. Whereas the billeting allowance offered some inducement to the poorer classes to take evacuees into their homes, this would not be the case with the well-to-do. On the other hand, perhaps it was better to put the children in the kind of home in which they had been born and raised. This would necessitate fewer psychological and emotional adjustments and the mode of life would be more comparable.

The Ministry of Health was also criticized for not advocating a rigorous policy of compulsory billeting. But as Titmuss points out, this was not the answer where children were concerned. "If householders were not prepared, willingly and sympathetically, to take children then there was little that could

be done about it." (p. 395) Consequently, compulsory billeting was rarely used in the billeting of evacuated children.

Those who did take evacuee-children into their homes with the resulting sacrifices of time, convenience, and privacy did so for many reasons according to Titmuss, among which were (1) compassion, (2) love of children, (3) example of neighbors, and (4) money from the billeting allowance provided by the government and, in some cases, by the parents of the evacuated children.

C. GERMAN WORLD WAR II EVACUATION

During World War II the Third Reich evacuated some 5,000,000 people from target cities to safer areas. The evacuations were carried out over a considerable period of time, from the beginning of the war through 1944, with about 80% of the 5,000,000 people being evacuated between the summer of 1943 and the end of the war in Europe. Since the vast majority of the people were evacuated after the war had begun, the German evacuations should probably be viewed for the most part as the post-attack variety.

Considerable preplanning took place in anticipation of the need for evacuation. Attempts were made to establish an integrated, controlled movement of the population to be evacuated. Evacuation and reception areas were established, with each of the reception areas, which were located in remote parts of Germany or a nearby foreign country, being designated to receive the evacuees from a specified target area. The policy of selecting reception centers so distant from the target areas was based on the beliefs that (1) the safest areas are those most distant from the target areas and (2) these areas would be more attractive to the people for short-term evacuation and could be presented to the evacuees as a vacation at the expense of the Third Reich (keeping in mind, of course, that at this time Germany assumed they would win the war in short order).

The evacuations included women, children, the aged, infirm, and other persons not considered to be essential to maintain the war effort. In other words, the situation was the same as that which existed in England. The evacuees were urged to make their own billeting arrangements with friends or relatives.

The government authorities responsible for the evacuations faced many problems, among which were: (1) keeping families together, (2) making arrangements for the return trips, (3) insulating and protecting people and places from the effects of evacuation, (4) preserving class distinctions, (5) establishing a system of payment to evacuees and hosts, and (6) resolving administrative conflicts and coordinating the activities of the various agencies involved in the evacuation program.

The primary source of data concerning the German evacuation experiences is the U.S. Strategic Bombing Survey.

The German evacuation scheme, like the Holland and British, ran into many problems of conflict and hostility between the evacuees and the residents of the reception communities. Despite attempts on the part of the government to match evacuee and host, to promote propaganda programs for the purpose of minimizing frustration and to maintain morale in the face of increasing evacuation, to provide recreational facilities for the evacuees, and to, in general, do whatever could be done to mitigate evacuee-host tension, many problems prevailed.

Some of the factors leading to tensions and conflicts in the evacuee-host relationship were (1) separation of families, (2) overcrowding due to housing shortages, (3) inadequacies of facilities in the reception areas, (4) difficulties in adjusting to new locales, (5) rural-urban and regional differences, (6) social status differences between evacuees and hosts, (7) homesickness, (8) worry about safety of members of the family left behind in the target centers, and (9) dissatisfaction with compensation for losses.

Evacuees and hosts were questioned concerning their experiences in the reception areas. These data are summarized below, first for the evacuees, and then for the hosts.

Evacuees' Responses:

1. Most evacuees were satisfied with their billeting arrangements, but some complained about crowded conditions.

2. Most evacuees were willing to evacuate at first, but as time passed they became more and more reluctant to be separated from members of their family.

3. Most evacuees reported that they adapted well to the host community. They gave as reasons for a successful adaptation, the congeniality of the people in the reception areas and knowing that their children were safe from the bombings. Those who reported troubles in adapting to the host community based their judgments on homesickness and separation of family members.

4. The fact that most gave good reports must be viewed in terms of another consideration; namely, the main reasons for satisfactory evacuation experience were: (a) the evacuees were billeted either with friends or relatives; or (b) they remained in the reception center for such a short time that problems did not have a chance to arise.

Hosts Responses:

1. Thirty-three percent of the hosts either reported that they actively disliked or merely tolerated the evacuees.

2. About ten percent reported that the billeting experience was almost totally unsatisfactory.

3. Reasons given for a satisfactory billeting experience were: (a) the evacuees were friends or relatives; (b) the evacuees stayed only a short period of time.

4. Reasons given for partially or totally unsatisfactory billeting experiences were: (a) evacuees failed to do their share of the work (e.g., household chores, child care, etc.); (b) evacuees were critical and arrogant and aroused regional antagonisms; (c) presence of evacuees created food, medical, utility and other shortages; and (d) evacuees caused overcrowding conditions.

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IV. TENSION FACTORS

This section deals with the specific sociological, psychological, experiential, and situational factors which appear to have an effect upon the host/evacuee interfamily adjustment. However, before discussing these individual factors, several comments regarding the interpretation and generalizability of the data are in line.

In nearly all of the studies dealing with the host/evacuee relationship, interfamily tension has been treated as the dependent variable. While at this time, no better measure can be suggested, some of the difficulties which arise in interpretation of "tension" should be pointed out. First of all, as Lammers (1955) points out, the absence or presence of tension (as perceived by the interviewee) provides no information about the extent of family integration; nor does knowledge of the existence of tension provide much insight as to the interaction level where the point of gravity of the interaction is operative, or insight as to what sector of family life is primarily involved. The index of tension used in the Holland studies is, as the author states, related only to the sign or direction of the interaction. A further problem is that typically only one member of the family was interviewed, and this may or may not reflect the attitudes of the entire family. To the extent that the interviewee reflects the views of the family there is no difficulty with the data; however, unless the interviewee is the dominant member, i.e., has a high level of behavioral control over other family members, any significant difference between himself or herself and other family members will result in errors in the data and will lead to possible misinterpretations. This, of course, is a problem which must be dealt with in many field studies involving interviews and questionnaires. Another problem which must be considered in actually using these data is that of the relationship between tension and behavior; that is, we must ask the question at what level does perceived tension manifest itself in behavior? If, for example, the tensions reported by hosts or evacuees do not severely upset or cause dissolution of the relationship, the whole problem becomes much less critical to civil defense authorities.

The final point which should be made is that although each potential tension generating factor is discussed separately, the available data is not such that the factors can be ordered in terms of criticality, nor can very much be said about their interaction effects.

A. PERCEPTION OF DANGERS OR DEPRIVATIONS

In order to motivate people to evacuate an area, accept evacuees into an area, or even to take preventative measures more minor than evacuation, it is necessary that the dangers and deprivations involved be readily perceived. Perception of danger or deprivation is not a factor which is directly related to the host/evacuee relationship, but is important because it is the level of these perceptions that predisposes evacuees or hosts to react to the evacuation and billeting situation in certain ways. More basic, of course, is the problem of the initial motivation to behave in a manner commensurate with the gravity of the situation. That this is important is indicated by the British evacuation experience. Titmuss (1950) reports that by 1940, nine hundred thousand of the one and one-half million "official" evacuees had left the host communities and returned to their homes which were, of course, in potential target areas. In other words, if the bombs did not actually fall, the perception of danger was not great enough to tolerate the inconveniences and deprivations of evacuation. Further evidence of the effect of this perception factor is provided by the Japanese evacuation experience (USSBS, V47). In Japan, a voluntary precautionary evacuation was initiated in 1944 and continued through the heavy bombing raids on Tokyo, Osaka, and other large industrialized centers. In these evacuations, it was found that movements of the people gained impetus after each major setback suffered by the Japanese forces and particularly following the heavy bombing attacks on the home islands.

The necessary level of perceptions can be produced either directly, via involvement in a given kind of disaster, or indirectly, through vicarious means such as observation, newspapers, television, radio and the like.

In terms of gaining these perceptions directly, Ikle (1950) points out that people react in very different ways before and after they have experienced bombing destruction. This, of course, is also true of other types of disasters.

Moore (1958) and Prell (1955) in their respective studies of tornadoes and hurricanes, for example, have shown that disaster experience produces significant changes in various aspects of preparation behavior. While these data are not relevant to evacuation per se, they do support the suggestion that significant changes in behavior will result from direct experience.

With regard to producing motivation sufficiently strong to cause evacuation of the family, something other than merely involvement at a community level may be necessary. That is, it may be related to the level of personal involvement which is experienced. Bernert and Ikle (1952) state that the social and psychological factors operating in the evacuation process are markedly different, for example, after the family home is destroyed by bombs. They found that as long as the home remains undestroyed, whole family evacuation occurred only in rare cases in Britain. Janis (1951) has pointed out however, that seeing dead and injured persons will motivate many people to evacuate and accept the deprivations and inconveniences thereof. Evidence from various natural disasters also suggests that the gravity of the disaster situation as perceived by the population contributes to the willingness to accept evacuation and billeting in private homes. This is particularly important in getting people in reception areas to volunteer their homes as billets; the difficulty in motivating people to volunteer is, of course, due to the fact that the reception area has typically not been directly touched by the disaster.

In the Holland flood, for example, Ellemers (1955) concluded that a dramatic presentation of the disaster conditions over the radio and through newspapers helped to make billeting in private homes more acceptable to the people. This data points up the potentially important role the mass media could play in an evacuation plan.

The data on generating perception of danger is not nearly as critical in the post-attack situation because the dangers here would be all too evident. However, if a strategic evacuation ever became necessary, it appears that an extensive campaign may be necessary to motivate people to evacuate or to accept evacuees into their homes. It is here that the mass media could make an important contribution.

We have noted previously that experience in a disaster situation will produce a change in subsequent behavior, and we have inferred that the change would be favorable. While, in general, this is true, it should be noted that there is, in one case, the possibility of a detrimental effect. Titmuss (1950) found that in some cases people (hosts) who had initially volunteered to accept evacuees, refused to accept other families after the initial billeting experience was terminated. Since the American population has never been exposed to any of the dangers and deprivations of bombing, and only an extremely small segment of the population has been exposed to localized disasters, we could expect a great deal of difficulty in motivating people to evacuate or to accept evacuees. Some hint of this difficulty is provided by the Blum and Klass (1956) study of public response to disaster warnings. They found that even in the face of flood disaster general warnings did not motivate people to perform safety measures. The factors which apparently led to this lack of motivation to act were: lack of past experience with disasters; delusion of personal invulnerability; inability to adopt a new frame of reference within which to expect events; dependency on protecting authorities; and willingness to seize upon reassuring communications. All of these factors will have to be dealt with in motivating people to evacuate. Therefore, if a strategic evacuation plan is ever included into overall civil defense plans, it is apparent that an extensive educational campaign via OCD-led training and the mass media would be necessary. If such a plan is ever realized it would, it seems, be extremely helpful to study the role which the mass media could play in the education process.

B. COMPULSORY VS. VOLUNTARY BILLETING

Common sense would tell us that voluntary billeting is much more desirable than is compulsory billeting. However, logic tells us that the widespread damage of a nuclear disaster may very well necessitate the use of compulsory billeting.

In the Holland flood disaster the billeting was entirely on a volunteer basis; further, billeting partners were selected on a purely random basis. In spite of the improvised character of the evacuation, and the absence of any matching procedures, the evacuation proceeded rather smoothly. Ellemers (1955) attributed this to the fact that it was done on a voluntary basis.

In Germany, on the other hand, some form of compulsory billeting was generally used. The Germans had two laws which provided the authority for officials to assign billets. Under the less severe law, those taking in evacuees were allowed to select, from among the homeless population, those whom they preferred to billet with. They also had an option to remove the furniture or rent it to the evacuee. The more severe law did not provide this option, nor were the hosts permitted to make any selection of those whom they wished to have. In the situations in which large scale destruction occurred, such as that in Hamburg, only the use of the more severe law was effective.

The British had the authority to enforce compulsory billeting, and billeting officers were instructed to use it where necessary to distribute evacuees equally over the reception area. However, as Ilke and Kincaid (1956) point out, the compulsory laws "...are obviously of little use if children alone are to be billeted, since children should not have to be left with foster parents who lack willingness and sympathy." They point out that because of the realization of this, the distribution of children over the reception area was unequal. The poor and congested parts of reception areas were talked into accepting children evacuees while the higher class sections were not solicited for aid.[1] The many problems encountered by the British in the use of compulsory billeting have led to much support for voluntary billeting in which evacuees make their own arrangements. Ikle and Kincaid (1956) summarize this situation as follows:

> "Evidently, experiences from the last war have proved the great value of encouraging people to select their own billets. The history of this development is worth noting since it provides a useful lesson for our civil defense planning."

[1] As will be discussed more fully in Section F, the higher socio-economic classes did not readily accept evacuees.

The fact that voluntary billeting has been shown to be more desirable than compulsory billeting should not be taken as a suggestion that this will solve the interfamily adjustment problem; as is indicated by the Holland flood data, even voluntary billeting leaves much to be desired in terms of adjustment. If, however, one assumes that the volunteering host has some knowledge of the consequences of a billeting arrangement, the act of volunteering suggests a predisposition to react more favorably to many of the potential problems.[1]

C. BILLETING WITH FRIENDS OR RELATIVES VS. WITH STRANGERS

In the Holland flood evacuation a relatively large number of the more than 72,000 people displaced were billeted with strangers, many evacuees and hosts being thrown together on a chance basis. Of those persons interviewed in April, 49% were related to their host, 12% were billeted with friends, and the remaining 39% were billeted with strangers. Lammers pointed out that in view of the fact that voluntary offers of billeting were so plentiful, it can be concluded that the evacuee who billeted with relatives did not do so because they had nowhere else to go; this he feels speaks for the strength of kinship relations. A great deal of evidence suggests that kinship ties become stronger during stress situations. (Young, 1954; Bernert and Ikle, 1952; and Bates, et.al., ,1963.) One could expect, therefore, that billeting situations in which the evacuee and host families were related through kinship would lead to more successful adjustments than those situations in which the two families were strangers previous to the disaster.

The Holland flood data, however, failed to support this expectation. Lammers found no differences with respect to amount of tension whether the evacuee-host families were relatives, friends, or strangers. This was found to be the case in both the April and October data. In discussing the fact that a sample survey in Germany (reported by Bernert and Ikle) indicated that billeting with friends and relatives led to better adjustments and his data did not show this, Lammers states that "...the difference may be due to cultural differences between the Netherlands and Germany, but it also may have

[1] Some further data quite relevant to this factor is presented in Section C.

to do with the circumstance that their conclusion is based upon reasons reported by evacuees for a satisfactory evacuation experience. Naturally, the fact that evacuees mention kinship most frequently as an adjustment factor does not prove at all that this is really the case; evacuees cannot be expected to know the state of affairs of evacuation situations in general." (p. 68) If we are interpreting this latter statement correctly, and if it is in fact true, it would cast doubt on the whole of Lammers' study since he did, in administering his interview schedules, assume that the evacuee (or host) was aware of the state of affairs of the evacuation situation. A much more adequate explanation of why these results[1] might have been obtained is given by Eilemers (1955). He points out that, in general, those evacuees living with relatives had other friends and relatives in the reception community thereby promoting adjustment to the situation. On the other hand, those evacuees living with strangers had few or no friends or relatives in the reception community. Further he hypothesizes that"...lack of relatives and friends in such a situation can constitute a challenge inducing the evacuee to apply all his efforts to come to terms with his new environment. The upshot could be that such a fresh start enables one to adjust just as well, if not better than people who are a little bit familiar with the community..." In other words, even though the nature of the adjustment process is different for the two groups, the final level of adjustment is equal and therefore equal measures of tension were obtained.

Ikle and Kincaid (1956) suggest that even if tension and conflict are not reduced, it is more desirable for evacuees to arrange their own accommodations, preferably with friends or relatives. These authors hold tha such arrangements are important in that they minimize social, economic, and cultural differences between hosts and evacuees, and thereby reduce the incidence of billeting failures. In other words one might speculate that tensions in the evacuee-host relationship are the same regardless of whether he evacuee and host families are related or unrelated, but that the probability of successful

[1] We are speaking here not of the different results of the German and Holland studies, but of the result of the Holland study showing no difference in tension between evacuees billeting with relatives vs. those billeting with strangers.

interfamily adjustment is increased when the two families are friends or relatives; this increase in probability being due to feelings of responsibility on the part of the host family which increases tolerance to tension. Titmuss (1950) also suggested, on the basis of the British experience, that conflicts and tensions are reduced by having evacuees arrange their own billets; again preferably with friends or relatives. It is of extreme interest to note, however, that Klausner and Kincaid (1956) in studying the 1955 Connecticut flood disaster found that tension was greater in billeting situations where the evacuee and host families were relatives. This result points up rather vividly the fact that the importance and criticality of many of the factors discussed here must in some way be verified for our culture before any plans or decisions can be made. With the exception of this study, however, there is general agreement among those who have studied the problem that if a choice is available, billeting with friends or relatives is more desirable than billeting with strangers.

D. FAMILY SEPARATION

There are several evacuation situations which could result in the temporary separation of family members. A strategic evaluation of nonessential personnel could result in separation of children from parents or of mothers and children from fathers. Also an attack which occurred during the daylight working hours would find working fathers and mothers separated from the family. This could result in a post-attack evacuation in which the family remained separated, at least for the period of time until an "inventory" of evacuees was taken so that the location of most evacuees was known. That separation of family members, especially in periods of emergency, is disturbing, is evidenced by most of the disaster literature in which this occurred. The effect of this separation and the associated worry and tension upon acceptance of evacuation in general and upon the interfamily adjustment process in particular was evident in the British evacuations in which there were many cases of family separation. Titmuss (1950) reported that the greatest enemy of adjustment to evacuation was solidarity of the family. This cohesion factor tended not only to keep families from agreeing to evacuation, but also contributed to cessation of evacuation and return of evacuees to target areas. The desire to reunite is strong indeed and, when coupled with all of the inconveniences and deprivations involved in evacuation, results in a high degree of motivation to return.

The British experience showed, in particular, that breaking up the family, abandonment of the home and other possessions, and the inconveniences and hardships of living in the reception community were not acceptable as long as no actual bomb destruction or personal suffering was experienced. However, even when people do agree to evacuation on the basis of family separation, tensions and hostilities are likely to be much greater than in those situations in which the family remains intact.

Also in British studies it was found that unaccompanied children were more likely to remain in the host community than were children accompanied by their mothers. On the basis of this finding, Bernert and Ikle (1952) concluded that parents were more willing to be separate from their children of school age than from each other or from younger children (preschool age). Another factor mentioned by Titmuss (1950) was that disparities in child rearing practices between the host and evacuee families were readily perceived when the evacuee mother was constantly present in the house and that these were disturbing. If the mother was not present, however, these differences never became apparent. The necessity to share kitchen facilities and the like were also mentioned as factors contributing to the return.

The detrimental effects of family separation are also supported by the German data. In fact, it was found here that during strategic evacuations in which the men were left to work in factories, productivity decreased (USSBS, E64). Eventually, the problem of evacuees returning became so severe that in 1943 the Germans were forced to revise their evacuation policy with regards to location of evacuees. Under the new policy, people were evacuated to an area within the same district or city from which they came. The evacuees were willing to accept this even though housing in these areas was generally inferior to what was available in the more remote reception communities. It appears, therefore, that given a choice, many people prefer to remain near their home communities and accept both poorer accommodations and added danger than to go to distant reception areas. As will be seen in Section I, however, this may not be entirely a function of family separation, but may be partially a function of differences between the "Home" community and the Reception community.

The "separation" factor has, of course, also been shown to be operative in natural disasters. In his study of the 1953 floods on Canary Island, for example, Young (1954) reported that worry for safety of family members led to a great deal of stress and tension. He suggests that every effort be made to keep family members together.

Since the Holland flood evacuation was carried out primarily on a family basis, it provides no data relative to this factor.

Since maintenance of family groups seems to be extremely important in making an evacuation successful, it appears that post-attack "evacuation inventory" procedures should be developed to facilitate the reuniting of family members who are separated from one another.

E. PRESENCE OF CHILDREN

It is fairly evident that the presence of children in the evacuee/host relationship will, in general, change the relationship and make interfamily adjustment more difficult by creating various sources of friction. The following potential sources of increased friction have been given: (') the relative increase in noise and lack of orderliness and cleanliness which usually accompanies the normal activities of children, (2) problems in satisfying the functional requirements pertaining to the care and training of children by adults, (3) the recreational needs of children, (4) the increased crowding which occurs as a consequence of the children's activities taking place in addition to the normal family processes, and (5) as mentioned previously, differences between evacuees and hosts with respect to their concepts of child-management (Nordlie 1963).

Lammers (1955) reported that significantly more tensions were experienced in those evacuee-host billeting situations where children were present than in those where this was not the case. This relationship existed in both the April and October data but did not appear to increase over time.

In the British evacuations many children were evacuated without their parents. However, with or without the parents in the host home, the presence of children led to difficulties in the evacuee/host adjustment process. One set of problems arose from the relationship of children to their "foster" parents (the host family) in the form of jealousness between foster and real parents.

This was in many cases caused by divided loyalties on the part of the children (Bernert and Ikle, 1951). In cases in which only the mother accompanied the children, difficulties arose due to differences between the evacuee and host mothers in terms of child rearing concepts and domestic skills. Padley and Cole (1940) put the blame for these problems directly on the mother:

> "Far greater than the difficulties attendant on the billeting of unaccompanied school children were the irremediable problems of billeting mothers. Both the evacuee mother and the hostess inevitably resented the curtailment of privacy in daily living and were unavoidably critical of each other's standard of living, domestic skills and child management." (Padley and Cole, 1940).

Also, Ikle (1958) stated that "irreconcilable conflicts arose between the social and moral standards of the children's own families and those of their temporary hosts." (p. 92) This, of course, is related directly to religious and social status factors. Such conflicts often led to the parents taking their children out of the host home and making other arrangements for their care. The problems created by the presence of children cannot be prevented because the majority of the billeting arrangements will involve children. Methods must, therefore, be found to alleviate the problem via indirect means. For example, the recreational needs of children could perhaps be satisfied by providing special supervised play areas throughout the reception community. This would take the children out of the host home and thereby alleviate some of the sources of friction. The only other possibilities for handling the problems lie in educating both hosts and evacuees as to what to expect and how to best handle some of the obvious problems. Establishment of this familiarity and development of a level of expectancy, if it does not decrease perceived tension, will at least act to increase the tolerance to tension.

F. SOCIAL STATUS DIFFERENCES

Definitions of social status vary from author to author, making it somewhat difficult to correlate the data from various studies. However, nearly all of the definitions include some combinations of factors related to income,

social class, occupational prestige, education, etc. Since these factors are highly interrelated, the problem is less severe that it may at first appear. The social status factor as used here includes several definitions of the term.

In the Holland study (Lammers 1955 and Ellemers 1955) it was found that differences in social status (as measured by income level and occupational prestige level) caused an increase in tension over time. It will be recalled that there were two temporally separate sets of data taken in the Holland study. The first set of interviews showed that host and evacuee families who differed in terms of social status experienced no more tension than those in which social status was the same. However, in the mail survey, several months later, the data showed that interfamily differences with respect to this factor apparently caused relations to deteriorate to a larger extent than those cases in which both families were of the same status.

While there is nothing other than anecdotal data available with regard to the British experience, a conclusion generally agreed on by those who have studied the British evacuation experience is that the billeting situation would have been better if billeting partners would have been matched on certain characteristics; one of those characteristics which is usually mentioned is social status. With regard to social class, which is one of the characteristics of social status, however, it was found that people in the middle and upper social classes were often quite reluctant to take in evacuees of any class. Many got their physicians to issue medical certificates disallowing evacuees into their homes. This led to inequities in the dispersal of evacuees among available housing and was greatly resented by the overcrowded lower classes. That a situation similar to this might occur in the United States is suggested by Ikle and Kincaid (1956) in their study of potential evacuation problems in American cities:

> "It is difficult to judge whether or not the American people would react similarly (to the British) to billeting in private homes. The reaction would depend on the severity of the emergency situation as well as the skill used in administering the program. One suspects that the home owners in reception areas would first respond with hospitality to the evident distress of the homeless evacuees. One also suspects, that in the long run it would

be as galling, if not more so, to Americans as to Britishers to be dispossessed of the privacy of their homes."

Titmuss (1950) concludes that despite conflicts which arise, evacuees prefer to be housed with their own kind and where given opportunity to do so will make these kinds of arrangements. In the situations in which this applied in the British situation, however, the result as was seen was overcrowding in the lower-class areas. If the American population, particularly the higher social classes, does in fact react in a manner similar to the British, civil defense authorities may be faced with a paradoxical problem. They will have to choose between severe overcrowding in some segments of the population on one hand and compulsory billeting on the other. In addition to the social class effect found in Britain, it should be noted that Lammers also found something similar. He found that tension was highest when higher class evacuees billeted with people of their own social status, whereas this effect was not seen in lower-higher or lower-lower class combinations. Contrary to these studies, Klausner and Kincaid (1956), in their study of the Connecticut Flood, found that tension was greater in groups of the same social status, particularly in the lower classes. They also reported that tension was greater in billeting where the evacuee and host families were relatives. Such contradictory findings could be accounted for, at least partially, by national differences. Relevant to this also is a statement made by Ikle and Kincaid (1956) in discussing the general problem of assigning billeting partners by merely matching on the basis of social, economic, and ethnic characteristics:

"...there are two difficulties which make such a simple formula debatable. First, it is well-known that differences per se do not make for interpersonal hostility -- one could cite many examples in which harmony was promoted by diversity. Second, the correlation between behavior patterns and background characteristics is far from perfect. It is thus difficult to lay down principles which could guide the individual billeting officer in all his matching problems."

The authors here are not saying that selection of billets should proceed on a chance basis, but they make the point that it is not possible to set up general rules for all communities and all individuals. This, of course, again emphasizes the importance of studying the problem of evacuation in relation to our own culture rather than making generalizations from the experiences of other countries. Some of the results also hint that generalizations across social classes regarding the effects of tension factors is dangerous. This differential class effect should be carefully investigated to determine whether it is a general effect.

G. RELIGIOUS DIFFERENCES

In discussing religious differences as a tension generating factor it should be pointed out that a religious institution in the Dutch culture implies more than a set of beliefs, prescriptions, and rituals through which man relates to and worships a supreme being. Different religious institutions in this case imply a rather distinct style of life which pervades nearly every aspect of individual behavior (psychological behavior) as well as interactions with others (social behavior).

For the purposes of his study of the Holland floods, Lammers divided the Netherland people into three subcultures (Volksdelen) based on religious characteristics: Roman Catholics, Calvinists, and a residual group which he labeled the Non-Denominational. Each of these groups has, in addition to a distinct religion, its own political beliefs, and social institutions (clubs, schools, broadcasting systems, newspapers, etc.). As would be expected with this degree of intergroup difference, religious differences between billeting partners were found to be one of the most significant determinants of tensions in the evacuee-host relationship. Comparison of the April and October data, however, indicated that there was no significant increase in tension over time.

Titmuss (1950) also reported that in the British situation religious differences tended to generate tension. In Britain, of course, there was not such a severe differentiation between groups as there was in Holland. The increase in tension here was partly due to misunderstanding of and lack of tolerance for the customs associated with particular religions; as Titmuss states it:

> "The troubles of reception were, too, often accentuated by religious differences represented by poor Roman Catholic and Jewish families evacuated from Glasgow, Liverpool and the East End of London. Jewish customs were unknown and misunderstood in the rural areas of East Anglia, long settled in their habits and hostile to 'foreigners' though they might only be strangers from a neighboring county." (p. 179)

Titmuss goes on to point out that problems were also caused due to inadequate religious education and worship facilities. This caused particular difficulties where the Roman Catholic faith was involved since many Catholic children went to non-Catholic homes and"...the chief fear of the Roman Catholic authorities was that the children were in danger of being weaned from the faith of their parents." (p. 179)

Whether or not religious differences would have an effect on interfamily adjustment in our own culture is difficult to predict. We know that religious prejudice exists; however, the degree to which this would be manifested in increased tensions or in overt conflicts cannot be known without further research. However, if any planning were to be done on the basis of available data, it seems that matching people according to religion would reduce the probability of conflict. This could, of course, be done on a community basis in which people from a section of a city in which one religion predominated could be sent to a reception community in which that same religion was predominant. The alternative to this would be to assure that each reception area provided for both religious education and worship for each major faith. This latter alternative is probably somewhat less desirable but has the advantage of not requiring nearly as much data collection and preplanning.

H. COMMUNITY DIFFERENCES

Under counter-population attack, urban areas, being highly industrialized, are certainly the most probable targets for a nuclear attack. Rural areas, on the other hand, by virtue of their lack of industry, will be safer from attack and will therefore be the most probable reception areas for an evacuation. In other words, an evacuation occurring in the United States would most likely be urban to rural. While this dichotomy tends slightly toward oversimplification,

it makes the point that there will probably be a great number of differences between the "home" community and the reception community. This could, as evidenced by other evacuation data, have an effect upon the host/evacuee adjustment process.

In the Holland disaster the evacuation was, in large part, from rural to urban communities. Therefore, in addition to all of the other adjustments which had to be made, the evacuees were forced to operate within the context of an environment in which a completely different style of living prevailed. This is very likely to produce increased tensions or conflicts, at least until adaptation occurs. Lammers (1955) discusses a number of rural-urban differences which could lead to tensions and hypothesized that tension in the evacuee/host relationship would increase as the degree of urbanity increased. However, neither the April nor October data showed a clear relationship between adjustment of evacuees from rural areas and the size of the host community to which they were evacuated; population served here as the index of degree of urbanity. He points out, however, that in the analysis no distinction was made between evacuees who lived on a farm and those who lived in somewhat urbanized villages. Ellemers (1955) concluded however, that"...predominately rural evacuees felt much less at home in outspokenly urban reception communities than in relatively rural reception communities."

While the Holland evacuations were rural to urban, the British evacuations were urban to rural. Titmuss (1950) reported that one factor leading to conflicts between hosts and evacuees was lack of knowledge concerning each other's ways of life. In general, the urban evacuee had difficulty adjusting to the ways of his rural host. Also, mentioned was the lack of "adequate" social services, educational facilities, medical facilities, and other institutions in the rural areas. The definition of adequacy here is, however, rather ambiguous.

In German evacuations, the urban-rural relationship was confounded by other rather severe regional differences such as language barriers and ethnic customs. For example in the reception areas in Bavaria the habits and customs differed greatly from those regions from which most of the evacuees originated. Of course, the language problem, and severe differences in customs would not pose problems in an evacuation in the United States. The rural-urban problem may be of some slight significance here, but with the mass media it is unlikely that the problem would be as great as even that in the Holland and British

situations. That is, rural and urban people in the United States are, by virtue of magazines, television, etc., probably more familiar with one another's customs than is the case in many other countries. This familiarization would most likely facilitate adjustment since the individuals involved would know what to expect in the way of differences. Another factor of possible importance is the relatively high degree of mobility exhibited by some segments of the urban population. One would expect that experience with a number of communities would tend to mitigate many of the potential effects of community differences. This high degree of mobility does not, however, characterize the lower class urbanites and it is here where many of the problems may lie.

I. ATTACHMENT TO THE EVACUATED (HOME) COMMUNITY

By living in the same community for a number of years one forms ties with neighbors and friends; becomes familiar with the stores, schools, recreational facilities, and other institutions; establishes habitual ways of doing things; and, in short, develops a knowledge of every aspect of community life with which he interacts. Moving from these familiar surroundings to a new community dissolves these ties and places one in "foreign" surroundings in which, in some cases, one must change many aspects of his way of life. The stronger one's attachments or ties to the old community and the more dissimilar the way of life between the old and new communities the more difficult will be adjustment and integration into the new community.

In the evacuation situation the individual is faced not only with an abrupt break in community ties and having to cope with the unfamiliar surroundings of the new, but with the loss or potential loss of his home and other personal possessions.

In the Holland flood situation Lammers (1955) reported that loss of ties and familiar surroundings led to tensions. Most evacuees, it was found, wanted to return to the home community as soon as possible. The evacuee's feelings and attitudes were dominated by the desire to return to their home community and the possessions they had left behind.

It is difficult to tell, of course, whether the anxiety was caused primarily by the uncertainty as to possessions or whether it was caused by the loss of community ties.

Lammers also mentions for example that:

> "...Although the village community as a whole had actually disappeared, one cohesive factor was still strongly active: the feeling of belonging to the district or village which had been struck. Being victims together and sharing the desire to return to the evacuated community as soon as possible created a special kind of solidarity."

Further, Lammers states that:

> "...Where possible, people tended to maintain and even strengthen relationships with friends, relatives, acquaintances rather than make new social contacts. Also (they) made casual contacts with fellow villagers with whom no previous intercourse had occurred. In general, few new contacts were made. --- People associated as much as possible with old friends and acquaintances."

Ellemers (1955) mentions that this contact was facilitated by activities of the churches and other familiar institutions. He concluded that the "...old institutions of authority and the churches have an important task, because they appear to be the most acceptable organizations for the maintenance of the former communal ties." (p. 69)

This suggests that many of the associational ties with the community were maintained, at least in a simulated fashion, and that individual possessions may have been a more important cause of anxiety. However, in support of the suggestion that anxiety may have been caused by desire to return to the "home" community, Fritz and Mathewson (1957)[1] present some relevant data. They use as a case in point the people in Nagasaki and Cassino who returned after being evacuated, apparently preferring to live in the rubble of their own homes. Attachment to the community became a problem in the strategic evacuations of

[1] As annotated in Popper and Lybrand (1960).

Britain. In many cases it, along with other factors, led to the return of evacuees to potential target areas. The degree to which this factor alone contributed to decisions to return cannot, of course, be determined.

A high degree of "home" community attachment then, can be a problem in two ways. First, it can lead the evacuee to "here-there" comparisons which, in the eyes of the evacuee, will usually be seen in favor of "there." This was shown in the investigation of Ex (1963) in his study of the adaptation of Indo-European families who were expelled from their native country and settled in the Netherlands. This "comparison behavior" will usually result in more difficulty in adjustment than if the evacuee accepts his current environment as it is. Secondly, it may contribute to early return of evacuees to the "home" community. This, as was shown in the British evacuation, will reduce the effectiveness of a strategic evacuation. In the case of a nuclear attack, early return could lead to many problems because of fallout and lingering radiation.

J. SPACE AND PRIVACY

Many aspects of the space and privacy problem cannot be considered in absolute terms. What constitutes a low degree of privacy for one family may be an increase for another. Therefore, a better way to approach the problem is to consider the increase or decrease in space and privacy over what the evacuee had previous to evacuation. For the host, of course, there will always be a decrease. Therefore, if the evacuee realizes an increase in space and/or privacy, he and the host may very well answer differently if asked about conditions which led to increased tension. This "change-in-space" factor was not considered in the data reviewed, but the above point was made in order to bring out the fact that "overcrowding" and "privacy" are relative terms within a wide range of values. Lammers (1955) makes another point which is highly relevant to interpretation of data related to these factors:

> "The crucial point in the changed physical conditions may not be so much the exact amount of cubic meters available for both families to carry on their life-processes but rather the implied necessity to share the house with another family. The question of what dwelling quarters are at a family's disposal to perform their habitual life-processes without

continuously intersecting with the interactions of the other groups is most relevant here. The other parts of the house, which must be used by the two families together are then the potential friction-zones and areas where the two (families) come into contact and where incompatibilities may occur." (p. 30)

In the Holland disaster many houses had inadequate accommodations for the number of evacuees taken in, resulting in overcrowded conditions (Ellemers, 1955). Tensions arose quickly under these circumstances. When authorities became aware of such billeting situations, attempts were made to make other arrangements for the evacuee family. Since the authorities took remedial action so quickly it was not possible on the basis of the Holland flood data to get any information concerning the long-term effects of overcrowding on the evacuee-host relationship.

At the time the data was taken then, we can assume that, in general, conditions of overcrowding were not severe, and we are therefore dealing more with privacy than anything else.

No statistical relationship was found between kind of housing arrangements and tension on the basis of the April data. However, lack of room and lack of privacy were mentioned rather frequently as sources of tension regardless of the kind of housing arrangements. As would be indicated by the previous statements, lack of room was given most frequently as the reason why an evacuee family left a host family. There is some indication that lack of private sleeping quarters may in the long run give rise to tension, as the October data showed more tensions when sleeping quarters were not separate as compared with separate sleeping quarters. Of course, Lammers' previously quoted statement "friction zones" is generally relevant in determining sources of conflict.

With respect to overcrowding per se, Klausner and Kincaid (1956) in their study of the Connecticut flood found that as degree of crowding increased to approximately 1.3 persons per room, tension and conflicts increased to a point, then decreased before a second step-increase was observed. This, however, cannot be interpreted as a "magic number" due to the previously mentioned fact that overcrowding is a relative term. While there is no doubt that overcrowding leads to increased tensions, the tolerance threshold at which onset of tension occurs is variable.

K. SOCIAL CONTACTS OUTSIDE THE EVACUEE-HOST RELATIONSHIP

In the evacuation situation, evacuees will be thrown into abnormally intimate contact with host families who, in the worst case, will be strangers to them. The effects of this "enforced" intimacy, however, can probably be mitigated if the evacuee has social outlets where problems or potential problems can be discussed openly or where tensions can be temporarily forgotten.

In other words, those evacuees who: (1) maintain social contacts with friends and/or relatives in the reception community, whether the friends or relatives were themselves evacuees or members of the reception community; (2) make new social contacts in the reception community with other evacuees or members of the host community; or (3) join in religious, educational, recreational, or other social activities outside the evacuee-host relationship, should make a better adjustment to life in the reception community than those whose activities occur entirely within the realm of the evacuee-host relationship.

The extent to which social contacts with relatives and/or friends outside the evacuee-host relationship facilitated the adjustment process appears to depend to some extent on the number of friends and/or relatives available in the reception community, and whether they are other evacuees or members of the host community (Ellemers, 1955). As was mentioned previously, the Holland flood data indicated that the vast majority of those evacuees who billeted with strangers had no relatives or friends in the reception community, while those who billeted with relatives or friends tended to have many other friends or acquaintances there. It was found that the evacuee made a better adjustment to his new environment when he had a number of relatives and/or friends in the reception community, as compared with those evacuees who had none. However, in the case of those evacuees who had only a few relatives or friends in the reception community it was observed that their adjustment was the same as or worse than that for those with none. Ellemers hypothesized that "lack of relatives or friends in such a situation constitutes a challenge inducing the evacuee to apply all his efforts to come to terms with his new environment." He suggests that the result of these efforts could be that such a fresh start enables the evacuee to adjust just as well if not better than those evacuees who have a low degree of familiarity with the reception community. As Ellemers (1955) states it, "...

"...Those with only a few relatives or friends may to a lesser extent succeed

in orienting their lives to the new environment, as the presence of those few relatives and friends continuously keeps their frame of reference on the 'pre-flood situation' functioning." Evacuees who have no friends or relatives in the new environment are forced to stop perceiving the reception community in this frame of reference; consequently, they may adjust to their new environment more easily.

> "Perhaps in an evacuation situation an individual family all on its own has comparatively good chances to replace its old frames of reference by new ones under the impact of demands of the new situation. When fellow-evacuees are present, in other words in the case of 'collective' evacuation to a certain community, evacuees may tend to cluster together and form a sort of 'substitute' home community in the reception community. This may imply a sort of marginal' position for the individual evacuees who participate also in the life of their temporary community. When no frequent contacts are maintained with others from one's home community, or when so many others are present that one may live relatively isolated from the new environment, no particularly maladjusting effects may follow. Those evacuees, however, who have rather intensive contacts with a small group of fellow-evacuees may find it hardest to adjust as they can neither abandon their old frame of reference nor orient themselves to their new environment satisfactorily."

Another source of social contacts is the gathering of people into groups who share common aims and interests, be they religious, educational, recreational, or whatever. Ellemers (1955) reported that in the Holland flood, social gatherings had significance beyond merely bringing people together for the purpose of pursuing some common aim or interest; in addition, these gatherings fulfilled the social-psychological function of being among friends and acquiring information. Ellemers states that:

> "There was a need to feel oneself as belonging to a larger whole.---The apparent solidarity characterizing many evacuee meetings was valid only for the actual situation of being evacuated. Such meetings often served only as a substitute for all contacts that were missed. As soon as people were able to return to the old village, the interest for these meetings and the feelings of solidarity generally disappeared fairly soon."

These results suggest that in the evacuation of a community, the members of that community should be kept, insofar as possible, together so that social interaction with a large number of friends and/or relatives can take place. The one result which, if relevant in our culture, provides operational planning difficulties is that evacuees with only a few friends or relatives in a community fared, in some cases, less well than those with no friends or relatives. This is somewhat contrary to the previous data which generally suggest that private arrangements for billeting are more desirable. Conclusions drawn from this data regarding the making of one's own arrangements for billeting may have to be modified or qualified to encompass the Holland data discussed here. With the large numbers of people which will have to be evacuated in a nuclear disaster it would not be possible to put all of the families in areas where they had no friends and relatives; therefore, the suggestion of large "home" community groupings in reception areas seems most applicable.

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V. SUGGESTIONS FOR FUTURE RESEARCH

It was pointed out previously that because most of the data reviewed here was obtained in cultures different from ours, generalization is somewhat dangerous. For example, with regard to the factors of "social status" and "billeting with friends" a study of the Connecticut flood showed results opposite to those found in the Holland flood and British data. The nature of the results of the Connecticut flood also indicate that we cannot feel safe in taking a "common sense" approach. If no further research is done in this area of interest, it would, of course, be better to rely on the conclusions derived here than to handle billeting assignments on a random basis. If further research on the problem of the host/evacuee relationship is contemplated, however, there is another logical step which can and should be taken before experimental endeavors are initiated. In the course of performing this study, we became aware of a great deal of American sociological and psychological literature which could be applied to the billeting problem. While the resources and time of this study did not permit an adequate review of this literature, it became apparent that many of the studies would have some relevance when used in conjunction with the data presented here. Therefore, a next logical step would be to review what is known about social and psychological behavior in this country, in relation to the factors which this study has shown to be important in other cultures. For example, data on prejudice in America would most likely help to interpret and determine the behavioral significance factors such as "religious difference." If each of the factors were reviewed in this manner, the result would be a much firmer basis upon which to proceed to an experimental research phase. Where there is a high degree of congruence between the American literature and data from other cultures it would most likely be safe to plan on this basis. On the other hand, incongruence would dictate the need for further research. While a study such as this may eventually be needed, it is not felt that it would, at the present time, be strategically desirable. The problem of billeting, while critical, is only a small part of a much larger problem which must be dealt with--that of population relocation.

In doing the present study, the need for an analytic study to develop a structural framework within which to study the broad problem of population relocation became apparent. This study should have as its primary goal

the definition of all of the problems related to relocation and an analysis of their scope and implications. This data should be presented in such a way as to permit, with further analysis in some cases, the following:

1. Derivation of the interrelationship between problems;
2. Definition of problems which became apparent with knowledge of these interrelationships;
3. Determination of the order of each problem in terms of criticality/strategicality;
4. Determination of the general type of analysis best suited to each problem;
5. Determination of where significant gaps in information exist.

The need for such a study was discussed briefly in the introduction to this report in order to put the problem of the current study into proper perspective; further elaboration is needed here however. Even a cursory look at the problem in its totality makes it apparent that the subproblems are numerous and diverse; many of them have far-reaching implications, not only for the immediate post-attack period, but also for eventual rehabilitation and recovery. As was pointed out, population relocation involves social, psychological, economic, logistic, and administrative problems and none of these separate problems can be attacked without considering the effects upon one or more of the others. Clearly, the problem is complex and requires a thorough and systematic study if an effective countermeasure system is ultimately to be developed. The literature reveals that many aspects of the problem have been studied separately, e.g., evacuation of several types, migration, transportation, housing, and the like. However, the problem has never been studied in its totality. This perhaps is due to its apparent complexity. This kind of an approach is necessary, however, if the relationships between subproblems are to be defined. For example, what are the similarities and differences between certain types of evacuation and short-term migration. We semantically differentiate these two types of movement, and certainly there is a temporal difference between the two, but what is the functional difference? That is, can both problems be handled or controlled in the same way, making them functionally equivalent? This is an

important question from the standpoint of gathering data which will ultimately be used in planning and is an example of the kinds of questions which will be more easily answered if there is some framework within which to relate all of the separate problems.

Another reason for doing a study to develop a structural framework is that it will result in the definition of a large number of problems which are a function of interrelationships and are therefore not readily apparent. It will also result in definition of the dimensions of the individual problems. This knowledge of dimensionality and the consequent implications will facilitate the formulation of decisions regarding criticality and strategicality.[1] While problems related to population relocation are extremely important, when reviewed in relation to all of the other problems with which OCD must deal, it is apparent that there will be limited resources available to study the problem. This makes it imperative that OCD personnel have the information necessary to design a series of studies which have both high criticality and high strategicality and thereby make maximum use of the resources available.

Another important use of the study data would be to provide much of the information necessary to determine the general type of analysis which is most applicable and efficient in relation to a given problem. For example, the problem investigated in the current study was one amenable to a type of analysis which did not require reference to any physical determinants, and only in a general way to temporal determinants. However, there are many problems which require the use of specific referents in order to produce useful information. The importance of deciding within what constraints a given problem is to be studied lies in the fact that virtually all of the studies done will require generalization beyond the actual data of that study. Therefore, in planning the study, a decision must be made in many cases whether the study should be based on the general or the specific case, e.g., on specific attack patterns in a given area (a point-by-point analysis), or on general destruction patterns. This

[1] See "An Approach to the Study of Social and Psychological Effects of Nuclear Attack" HSR-RR-63/3-RR for a full discussion of criticality and strategicality as used here. Briefly, the concept of criticality refers to "...behavioral processes and post-attack goals", whereas strategicality refers to "...the development of a research program designed to maximize production of important information of wide significance." pp. 129-30.

decision is usually made on the basis of estimates as to which approach is likely to generate the most error when making the necessary and appropriate generalizations. In the case of a problem such as relocation, these error estimates can be made with greater accuracy if many of the contingencies are known. The contingencies, in this case, bear upon the functional relationships between subproblems and, as such, will be more apparent when viewed within the total structure than if considered separately as is currently being done in most cases.

Finally, an analysis such as the one being suggested will result, at least functionally, in a matrix into which available data can be put and studied in relation to the total problem. This will show where significant gaps in information exist and, in conjunction with criticality/strategicality decisions will point to areas of required research.

The study, then, can provide a great many insights into the problem(s) of relocation but will in the process permit the collation of relevant data from a number of diverse sources. Further, it will provide the background information necessary to determine the needs for research and to design a cost effective program of research on the problem of relocation.

VI. SUMMARY

The problem investigated in the current study was one of the many involved in the broad problem of population relocation.

Many of the problems involved in relocation can be effectively attacked only within the context of specific situational determinants; e.g., time available for movement into reception areas. Whether or not certain time demands can be met is, of course, dependent upon the total available or useable transportation facilities of a given area, and is therefore geographically dependent. However, there are several problems involved in relocation which can be considered, in large part, independently of factors such as time and transportation facilities; one of these is the problem investigated in this study, the problem of housing of people in reception areas. Regardless of the type of movement, duration of stay, etc., evacuees will have to be housed in some fashion until such time as they can re-establish in some way. While some people will be able to stay with friends and relatives, and will therefore not initially pose a major problem to civil defense authorities, there are many who will have nowhere to go and must be provided for by the government from the outset.

There are three types of accommodations which could be used for displaced persons: (a) camps or bivouacs, (b) public facilities such as hotels, and (c) private homes. It is apparent that the greatest space availability by far would be in private homes. For this reason, the study was focused on the general problem of billeting in private homes. Since the success or failure of a billeting arrangement is dependent upon the interpersonal relationship between the two billeting families, the factors related to the interfamily adjustment process were of primary interest. The problem of interfamily adjustment was approached from a case study viewpoint with emphasis on identification and description of concrete sources of disruption rather than on an attempt to develop a theory of interpersonal tension.

The bulk of the data on billeting in private homes in general, and on interfamily adjustment in particular, is provided by three sources:

1. The Holland flood disaster of 1953.
2. The British evacuation experience of World War II.
3. The German evacuation experience of World War II.

Data from these three sources were used as the foundation for the discussion, but were supplemented by other data as required. A large part of the disaster literature, while relevant to many of the subproblems of population relocation, does not include data relevant to the problem at hand. The dearth of literature directly relevant to the billeting and the consequent difficulties of interpretation became apparent early in the study. It should be noted that, of the major data sources, only Lammers' (1955) study of the Holland flood disaster provided a systematic study of the problem. The other major sources rely mostly on anecdotal data.

The following factors have been reviewed relative to their effects upon the host-evacuee interfamily adjustment process.

1. Perception of danger and deprivations.
2. Compulsory vs. voluntary billeting.
3. Billeting with friends or relatives vs. with strangers.
4. Family separation.
5. Presence of children.
6. Social status differences.
7. Religious differences.
8. Community differences.
9. Attachment to the evacuated (home) community.
10. Space and privacy.
11. Social contacts outside the evacuee-host relationship.

It was found that, in general, factors 4 through 10 all lead to increases in interfamily tensions. Since, in most cases, more than one of these factors characterized the host-evacuee relationship, it was not possible to order the effects.

Also, there was complete unanimity regarding the desirability of voluntary rather than compulsory billeting (factor 2) and the desirability of having social contacts outside of the host-evacuee relationship.

The "perception of dangers and deprivations" factor is not related as directly as the others to the host-evacuee relationship,but it is important because it is the level of these perceptions which predisposes evacuees and hosts to react to the evacuation and billeting situation in certain ways. More basic is the problem of initially motivating people to behave in a manner commensurate with the gravity of the situation. Review of the data related to this factor pointed up the necessity of extensive public information programs if a strategic evacuation is ever included in civil defense planning.

Whether it is better to billet with friends or relatives, or with strangers appears to be partially dependent upon the number of friends and/or relatives, in addition to the hosts, one has in the area. However, there is general agreement that billeting with friends or relatives results generally in a better host-evacuee relationship.

The paucity of data directly relevant to the host-evacuee relationship, along with the previously mentioned problem of the lack of systematic study of the relevant factors, makes it extremely difficult, if not impossible to draw any tenable conclusions. In addition, most of the data which is available was taken in cultures other than our own,making generalizations untenable. The data presented can only serve as guidelines to further research on the problem. Using these data as guidelines, the relevance and criticality of these factors should be evaluated relative to the American sociological and psychological literature. Much of these data, while not directly relevant, can serve to aid in the determination of which factors may be important enough to require experimental verification.

In doing this study, much of the disaster literature was reviewed for possible relevance to the problem investigated. In doing this it became apparent that population relocation has not yet been studied in its totality, and that the many studies relevant to it have generally not been considered in terms of their relationship to one another. If ever a countermeasure system to handle the relocation problem is going to be developed it is necessary to know the relationships between all of the problems.

There is, therefore, the need for an analytical study to develop a structural framework within which to study the broad problem of population relocation. This study should have as its primary goal the definition of all of the problems related to relocation and an analysis of their scope and implications. This data should be presented in such a way as to permit the following:

1. Derivation of the interrelationship between problems.
2. Definition of problems which become apparent with knowledge of the above interrelationships.
3. Determination of the order of each problem in terms of criticality/ strategicality.
4. Determination of the general type of analysis best suited to each problem.
5. Determination of where significant gaps in information exist.

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13 ABSTRACT

The problem investigated in the study was one of the many involved in population relocation, e.g., evacuation, migration, etc. The study focused upon the general problem of billeting in private homes and upon the specific problem of factors which generate interfamily tension thereby making adjustment difficult. The interfamily adjustment process was approached from the case study viewpoint with emphasis upon identification and description of concrete sources of disruption rather than on an attempt to develop a theory of interpersonal tension.

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